



## WILDLIFE MANAGEMENT

## AND RESEARCH NOTES

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| No.<br><br>1016 | <b>AUTHOR:</b> Chad M. Stewart, Deer Research Biologist    | <b>DATE</b><br>4/6/11 |
|                 | <b>TITLE:</b> 2009 Archer's Index of Furbearer Populations |                       |

### INTRODUCTION

Indiana's archery hunters play an important role in monitoring the abundance of furbearer and other selected wildlife species. Every year, during the archery hunting season, archers from across the state record their sightings of American badger, beaver, bobcat, bobwhite quail, coyote, domestic cat, fox squirrel, gray fox, gray squirrel, muskrat, opossum, rabbit, raccoon, red fox, river otter, ruffed grouse, striped skunk, white-tailed deer and wild turkey on standardized survey forms. Following the early archery season, participants return their completed survey form to the Division of Fish & Wildlife and population indices are tabulated according to the number of a given species sighted per 1,000 hours of hunting. Data is summarized on a statewide and regional scale based on Indiana's physiographic regions (Figure 1). This report summarizes data collected during the 2009 early archery season.

### SUMMARY

Indiana archery hunters recorded sightings of furbearer and other selected wildlife species from October 1 through November 13, 2009. A total of 6,518 archery-hunts were conducted during the survey period, resulting in 19,077 hours of hunting observations. White-tailed deer were the most frequently sighted (862.7 deer/1,000 hunt hours) wildlife species (Table 1) and the observation rate for deer remained at historically high levels (Figure 2). Raccoons (40.2 raccoons/1,000 hunt hours) were the most frequently sighted furbearer. Archer sightings of bobcat increased from 2007 and gray fox sightings declined to historically low levels (Figure 3). Fox squirrels (660.7 fox squirrels/1,000 hunt hours) were the most frequently sighted small game species, and both fox and gray squirrel sightings increased from 2007 (Figure 4). Wild turkeys (223.5 turkeys/1,000 hunt hours) were the most frequently sighted game bird, while bobwhite quail and ruffed grouse sightings remained at historically low levels (Figure 4).

Archery hunters interested in participating with this survey should send their name and address to the Division of Fish & Wildlife (see address below).

Archery Survey  
Division of Fish & Wildlife  
562 DNR Road  
Mitchell, IN 47446



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Table 1. Statewide and regional sightings of wildlife per 1,000 hours of archery hunter observations during Indiana's 2007 and 2009 early archery seasons (no survey was conducted during the 2008 season).

| Species       | Northwest |        | Northeast |        | North Central |       | Southwest |        | South Central |       | Southeast |       | Statewide |       |
|---------------|-----------|--------|-----------|--------|---------------|-------|-----------|--------|---------------|-------|-----------|-------|-----------|-------|
|               | 2007      | 2009   | 2007      | 2009   | 2007          | 2009  | 2007      | 2009   | 2007          | 2009  | 2007      | 2009  | 2007      | 2009  |
| Badger        | 0.0       | 0.0    | 0.0       | 0.3    | 0.0           | 0.0   | 0.0       | 0.0    | 0.0           | 0.0   | 0.0       | 0.0   | 0.0       | 0.1   |
| Beaver        | 0.0       | 1.1    | 0.2       | 3.9    | 1.7           | 0.4   | 0.4       | 2.5    | 0.3           | 0.0   | 0.3       | 0.9   | 0.5       | 1.6   |
| Bobcat        | 0.4       | 1.5    | 0.0       | 0.0    | 0.0           | 0.0   | 1.2       | 2.1    | 0.0           | 1.4   | 0.3       | 0.6   | 0.3       | 0.9   |
| Bobwhite      | 31.2      | 1.5    | 10.6      | 0.0    | 31.2          | 5.1   | 19.1      | 12.0   | 22.9          | 8.3   | 30.5      | 22.6  | 24.7      | 8.0   |
| Coyote        | 15.6      | 21.6   | 16.3      | 28.5   | 31.2          | 27.2  | 29.8      | 28.3   | 28.8          | 34.0  | 46.4      | 25.6  | 28.1      | 27.3  |
| Deer          | 1075.8    | 1012.7 | 1114.0    | 1120.5 | 1014.5        | 737.0 | 1172.0    | 1000.2 | 680.7         | 546.7 | 896.8     | 777.8 | 1008.0    | 862.7 |
| Fox           | 552.7     | 778.4  | 639.8     | 744.8  | 703.1         | 855.3 | 697.8     | 620.4  | 468.2         | 436.6 | 556.5     | 620.3 | 609.0     | 660.7 |
| Gray Fox      | 0.4       | 0.0    | 0.5       | 1.0    | 0.6           | 0.0   | 1.2       | 1.4    | 8.0           | 2.4   | 1.6       | 0.3   | 2.1       | 0.9   |
| Gray Squirrel | 117.1     | 197.0  | 57.7      | 62.4   | 69.6          | 64.2  | 198.2     | 254.7  | 686.6         | 816.3 | 328.6     | 246.2 | 251.1     | 280.4 |
| Grouse        | 2.5       | 6.6    | 13.3      | 7.5    | 0.6           | 11.0  | 2.8       | 4.9    | 3.8           | 2.4   | 9.1       | 3.9   | 6.5       | 6.0   |
| Domestic Cat  | 16.4      | 15.0   | 16.5      | 32.6   | 27.9          | 22.1  | 19.5      | 9.2    | 9.7           | 16.9  | 16.6      | 19.0  | 17.4      | 19.9  |
| Muskrat       | 2.5       | 1.5    | 0.2       | 3.4    | 1.1           | 1.3   | 0.0       | 0.0    | 1.0           | 0.3   | 0.6       | 0.3   | 1.0       | 1.2   |
| Opossum       | 6.7       | 9.9    | 10.4      | 9.8    | 7.2           | 10.6  | 4.4       | 8.8    | 7.6           | 8.3   | 5.2       | 4.5   | 7.2       | 8.6   |
| Rabbit        | 15.2      | 18.7   | 35.5      | 23.0   | 18.4          | 28.9  | 17.1      | 21.6   | 13.9          | 23.7  | 26.9      | 14.0  | 23.1      | 20.9  |
| Raccoon       | 25.3      | 43.6   | 30.1      | 54.1   | 33.4          | 50.2  | 29.4      | 49.8   | 29.9          | 23.4  | 24.7      | 27.7  | 28.9      | 40.2  |
| Red Fox       | 4.6       | 2.2    | 7.4       | 4.1    | 5.6           | 14.9  | 6.0       | 1.4    | 21.5          | 4.1   | 1.9       | 1.2   | 8.0       | 4.1   |
| River Otter   | 0.4       | 0.7    | 0.0       | 0.3    | 0.0           | 0.0   | 0.0       | 0.0    | 0.3           | 1.5   | 0.0       | 0.3   | 0.1       | 0.5   |
| Skunk         | 1.7       | 2.9    | 4.7       | 5.2    | 0.6           | 5.1   | 5.2       | 3.9    | 3.5           | 3.3   | 1.6       | 3.0   | 3.2       | 3.9   |
| Turkey        | 398.9     | 257.4  | 146.1     | 167.8  | 51.8          | 30.2  | 356.6     | 318.7  | 358.9         | 284.4 | 547.4     | 271.5 | 318.6     | 223.5 |

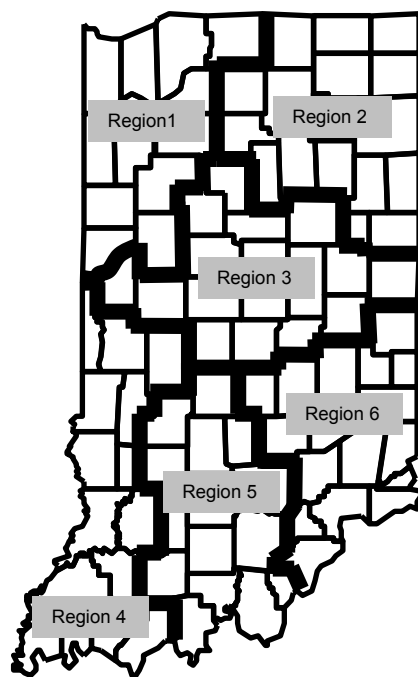


Figure 1. Indiana's fur harvest regions

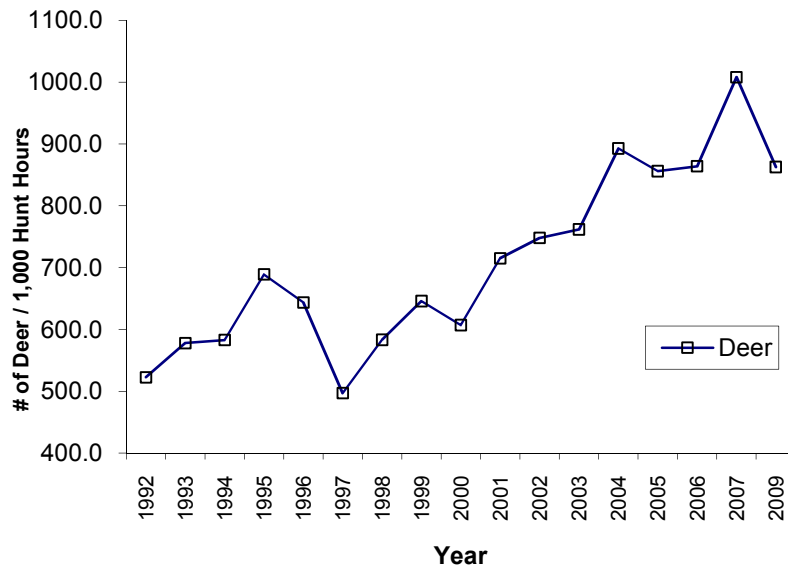


Figure 2. Number of white-tailed deer sighted by Indiana archery hunters for every 1,000 hours of hunting from 1992 to 2009.

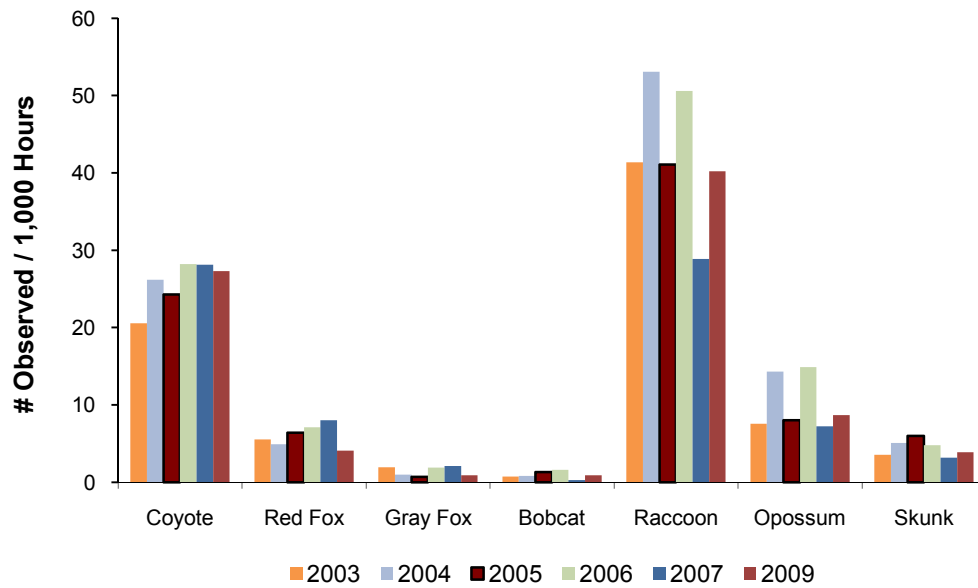


Figure 3. Number of coyote, red fox, gray fox, bobcat, raccoon, opossum and striped skunk sighted by Indiana archery hunters for every 1,000 hours of hunting from 2003 to 2009.

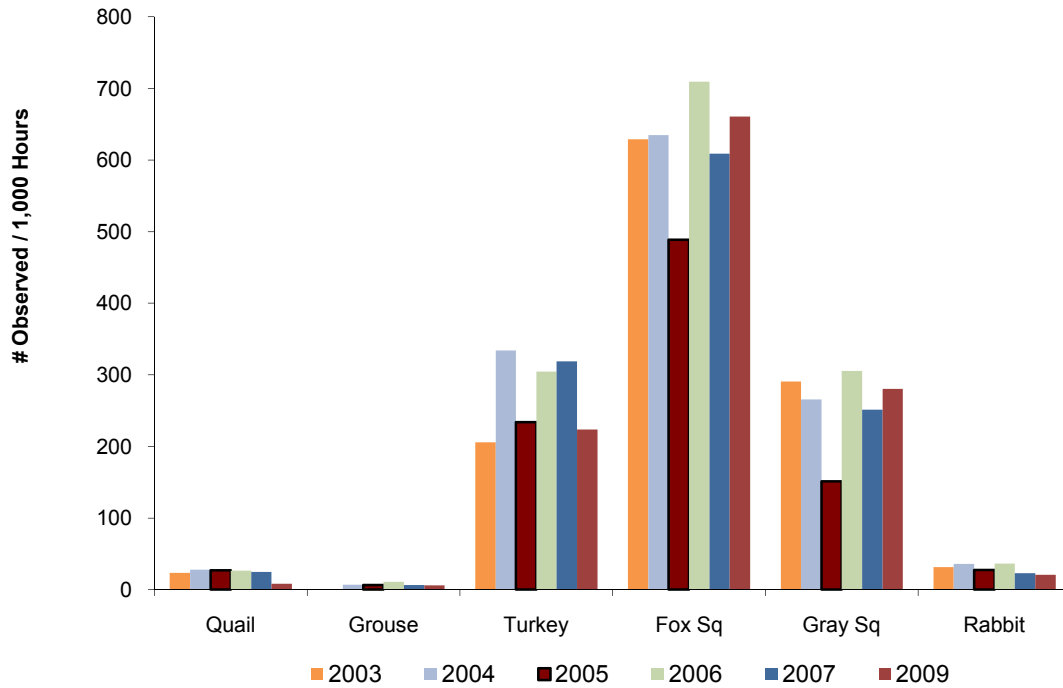


Figure 4. Number of bobwhite quail, wild turkey, fox squirrel, gray squirrel, rabbit, and ruffed grouse sighted by Indiana archery hunters for every 1,000 hours of hunting from 2003 to 2009.